

C L A I M S:

1. A suspension for the voice coil of a
loudspeaker drive unit, the suspension comprising:

5 an inner ring to be connected to the voice coil of
the loudspeaker drive unit;

an outer ring to be connected to the chassis of the
loudspeaker drive unit;

10 a plurality of radial spoke-like members connecting
the inner ring to the outer ring; wherein the radial
spoke-like members are free of compressive stress
between their ends.

2. A suspension as claimed in claim 1, wherein the
radial spoke-like members are in tension between the
15 inner and outer rings.

3. A suspension as claimed in claim 1 or claim 2,
wherein the spoke-like members are connected to each
ring by a respective hinge member.

4. A suspension as claimed in claim 3, wherein the
20 hinge members comprise webs of material integrally
joined to the spoke-like members and rings.

5. A suspension as claimed in any preceding claim,
wherein the spoke-like members are of strip-like form,
the surfaces of the strips being arranged broadside-on
25 to the front and back of the suspension.

6. A suspension as claimed in any preceding claim,
wherein the spoke-like members are arcuate as viewed in
a circumferential direction.

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7. A suspension as claimed in claim 6, wherein the spoke-like members comprise members of which the arcs face forwards along the longitudinal axis of the suspension and an equal number of members of which the 5 arcs face backwards.

8. A suspension as claimed in claim 7, wherein the members are arranged with forward and backwards facing arcs alternating.

9. A suspension as claimed in claim 7, wherein the 10 members are arranged in pairs with forward and backing facing arcs overlying each other as seen looking along the longitudinal axis of the suspension.

10. A suspension as claimed in any preceding claim, wherein the spoke-like members have a width 15 approximately equal to their length.

11. A suspension as claimed in any preceding claim, further including spoke-like members of a different construction and greater lateral stiffness to that of the first-mentioned spoke-like members.

20 12. A suspension as claimed in claim 11, wherein the spoke-like members of greater lateral stiffness are of a forked construction at at least one of their ends.

13. A suspension as claimed in claim 12, wherein the forked construction is of two-pronged form.

25 14. A suspension as claimed in claim 12 or claim 13, wherein the spoke-like members of greater lateral stiffness are forked at both ends.

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15. A suspension as claimed in claim 14, wherein the spoke-like members of greater lateral stiffness are substantially X-shaped.

16. A suspension as claimed in any of claims 11 to 5 15, wherein the spoke-like members of greater lateral stiffness are angled as viewed in a circumferential direction.

17. A suspension as claimed in claim 16, wherein the angling of alternate spoke-like members of greater 10 lateral stiffness is reversed from one to the next.

18. A suspension as claimed in any of claims 11 to 17, wherein the spoke-like members of greater lateral stiffness are connected to each ring by a respective hinge member.

15 19. A suspension as claimed in claim 18, wherein the hinge members of the spoke-like members of greater lateral stiffness comprise webs of material integrally joined to the said spoke-like members and rings.

20 20. A suspension as claimed in any of claims 11 to 19, wherein each spoke-like member of greater lateral stiffness includes a respective hinge member mid-way along its length.

25 21. A suspension as claimed in claim 20, wherein the hinge members mid-way along the length comprise webs of material integrally joined to the associated spoke-like members.

22. A suspension as claimed in any preceding claim, wherein the first-mentioned spoke-like members are made of a resilient material.

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23. A suspension as claimed in claim 22, wherein the resilient material comprises plastics material.

24. A suspension as claimed in claim 22, wherein the resilient material comprises impregnated fabric.

5 25. A suspension as claimed in claim 22, wherein the resilient material comprises metal.

26. A suspension as claimed in any preceding claim when dependent on claim 3, claim 18 or claim 20, wherein the hinge members are made of an elastomeric material.

10 27. A suspension as claimed in claim 26, wherein the elastomeric material is a thermoplastic polyester elastomer.

28. A suspension as claimed in claim 26 or claim 27, wherein the hinge members are made of a different 15 material from the remainder of the spoke-like members.

29. A suspension as claimed in any preceding claim, wherein the body of the spoke-like members of greater lateral stiffness is made of plastics material.

30. A suspension as claimed in any preceding 20 claim, wherein the outer and inner rings are made of plastics material.

31. A suspension as claimed in any preceding claim, wherein the suspension is of integral construction.

25 32. A loudspeaker drive unit including a suspension as claimed in any preceding claim and having a voice call connected to the inner ring of the suspension.